

REMARKS

Applicants, their principle representative in Germany, and the undersigned have carefully reviewed the second Restriction Requirement of October 15, 2008 in the subject U.S. patent application. In response, several of the claims have been amended. It is believed that claim 48, the sole independent claim now pending in the subject application, is patentable over the prior art cited and relied on by the Examiner as his basis for asserting that claim 48 was not allowable and that there were 24 groups of patentably distinct inventions. It is believed that claim 48, as amended, is patentable over the combination of references relied on. It is requested that claim 48, as amended, be allowed and that the various dependent claims linked by claim 48 also be allowed. In response to the Restriction Requirement, Group I has been selected for prosecution. Comments in support of the assertions that currently amended claim 48 is patentable, are set forth subsequently.

It is appreciated that the subject application contains 84 pages of substitute specification and 27 sheets of formal patent drawings. In an effort to aid the Examiner's understanding of the claimed invention, the following discussion is hoped will be of benefit.

Initially, the Examiner's attention is directed to Fig. 21 of the drawings and to the discussion that starts generally at paragraph 132, which describes the embodiment shown in Fig. 20, and the following discussion that continues on through paragraph 168. That discussion is directed to the web-fed rotary printing press which is set forth in claim 48 as filed, and also as amended.

The web-fed rotary printing unit of claim 48 recites the provision of at least one printing unit that is adapted to print at least six side-by-side printed pages on a web, as that web passes

through the printing unit. As may be seen more clearly in Fig. 1, there are typically provided several of these six-wide printing units. Each one of these prints six newspaper pages across the width of a web. The several printed webs are then directed to a superstructure, such as is indicated at 04 in Fig. 1. The purpose of such a superstructure is to initially longitudinally slit the web into several partial webs and to then place the several partial webs on top of each other. The result of this is an arrangement of superimposed partial webs that then need to be cut transversely, collected and folded into newspaper sections.

It is the purpose of the transport cylinder 123, the cutting cylinder 127, and the folding jaw cylinder 132, all as seen in Fig. 21, to receive the plurality of partial webs 109; 111; 112; 113; 114 and 116, to cut them transversely, to collect them and to cross-fold them. The transport cylinder 123 is claimed as having a circumference adapted to receive at least seven web section lengths arranged one after another in the circumferential direction of the transport cylinder. The transport cylinder thus has seven fields, each of which is equipped with a sheet leading end gripper and with a mid-point folding blade. A representative gripper is shown at 129 while a folding blade is shown at 130, primarily in connection with Fig. 20.

The folding blades 130 cooperate with the folding jaw cylinder 132 to cross fold the partial webs which are transported to the transport cylinder 123. Since the transport cylinder has seven fields around its periphery, it can operate in collect production and can produce a relatively thick product. In such collect production, each field can discharge its sheets only once in seven rotations. Since the partial webs that are being directed to the transport cylinder may themselves have a plurality of partial webs placed on top of each other, the resultant newspaper section, when it is eventually cross-folded, can be quite thick.

The provision of the transport cylinder as a seven field cylinder, has benefits not only in

terms of the number of partial webs it can fold before it transfers the resultant signature to the folding jaw cylinder. As set forth at paragraph 023 of the substitute specification, the use of such a transport cylinder, with the large radius and circumference, provides a surface curvature that reduces the angle at which the cutting blades cut the collected partial webs into products. This has a substantial benefit in the case of thick products where an even, uniform edge, as the partial webs are built up on each other, is of substantial importance.

As is discussed in paragraph 025 of the substitute specification, the benefit of the use of four cutters is again a reduced angle of blade entry and exit. This again contributes to the formation of a clean, straight, uniform edge on the accumulated signature. When the product being formed is a thick product, the use of the at least four cutters working together forms better edges.

The use of a folding jaw cylinder also is of importance with the seven field transport cylinder. The use of folding jaws is preferable when the resultant product is a thick signature with a large number of pages. The width of the opening of folding jaws in a folding jaw cylinder can be adjusted in accordance with the thickness of the product. This also produces a better grip of the product than would be possible with the use of other types of folding cylinders, such as gear folders.

In the Restriction Requirement of October 15, 2008, claims 50 and 51 were objected to because of the use of a term that lacked antecedent basis. Those two claims have been amended. Claim 57 was objected to as depending from subsequent claim 58. Its dependency has been corrected so that it now depends from claim 50. While all three of these claims have been withdrawn from consideration, they will be rejoined upon the allowance of independent claim

48. The amendment of these three claims overcomes the Examiner's objections to them.

Claim 48 was indicated as not being patentable over the combination of Michalik, U.S.

Patent No. 5,503,379; Maylaender U.S. Patent No. 5,303,909 and Bolza-Schunemann, U.S.

Patent No. 3,540,723. It was asserted that Michalik shows a folding apparatus with a seven field transfer cylinder but does not teach a six page web printing unit. The reference to Maylaender was cited as teaching a printing press with a six-wide printing unit. The combination of Michalik and Maylaender was noted as not showing at least four cutters working together and arranged one behind the other in the circumferential direction of the transport cylinder. It was asserted that Bolza-Schunemann shows such a structure. It was concluded that it would be obvious to one skill in the art to combine the Michalik, Maylaender and Bolza-Schunemann references. The undersigned respectfully disagrees.

In the Michalik reference, there is shown a cross folding device with shiftable formers. The formers are used to form a longitudinal fold in a partial web, or in a web before that now longitudinally folded web or partial web is cut transversely and is possibly collated. A two-section cutting cylinder B operates in cooperation with a four-section blade cylinder 9 that cooperates with a seven section folding jaw cylinder 11. However, the Michalik reference also recites that the cylinders 9 and 11 could also be structured each being only five sections. The cutting cylinder 8 is recited as being only a two-section cutting cylinder.

The Maylaender patent is directed to a paper web guide that uses a plurality of longitudinal formers which are arranged in three levels. This plurality of longitudinal formers each receive partial webs that have been formed by longitudinally slitting a six wide paper web. Each one of these partial webs is fed to one or another of two cross folding devices, as seen at 8-14 in Fig. 1. Each of these at least two transverse fold formers has a folding cylinder 11 and a cutting cylinder 12. These are not transport cylinders. There is no discussion of any transport

cylinder with seven fields on its periphery. Each one of the folding cylinders 11 would be expected to receive only a partial web that has been longitudinally formed and folded by one of the plurality of longitudinal fold formers which are arranged in at least three levels.

The reference to Bolza-Schunemann is directed to a gear folder for a rotary press. It is not directed to a jaw folder. In the reference, it is recited that a gear folder, not a folding jaw cylinder, would be expected to be usable to form a thick product. The Bolza-Schunemann reference does describe a four bladed cutting cylinder, generally at 7. However, that four bladed cutting cylinder 7 is described as being usable with a cutting cylinder 8 that is separate from the collecting cylinder 10. In the subject invention, the cutting cylinder has at least four cutters that are working with the transport cylinder. In the Bolza-Schunemann reference, the cutting cylinder 7 is not working with the collecting cylinder 10, which would be the equivalent of the transport cylinder of the subject invention.

As may be seen in the Bolza-Schunemann patent, each gear folder cylinder 14 and 15 carries three folding blades that move in a cylindrical manner and periodically extend through the periphery of their respective folding blade cylinders. Each such folding blade cooperates with a pair of folding rollers 19 or 20, respectively, to fold the product. That product is formed in a very different way than was done in the Michalik and Maylaender patents.

In the asserted combination, as advanced by the Examiner, it would not be obvious to one of skill in the art to combine only the selected features, as advocated by the Examiner, to arrive at a device which would render obvious the subject invention, as recited in currently amended claim 48. The Maylaender reference does not show, or suggest, the use of a transport cylinder that is usable in collect production and that has seven fields. In Maylaender, the cutting cylinder 12 cooperates with the folding cylinder 11. The Michalik device does show a transport cylinder

9 that cooperates with a folding jaw cylinder 11. However, it uses a two section cutting cylinder

8. The Bolza-Schunemann reference shows a gear folder, not a folding jaw cylinder. While

Bolza-Schunemann shows a four blade cutting cylinder, that cylinder 7 cooperates with a

separate cutting groove cylinder 8. The combination of the Bolza-Schunemann reference with

the Michalik reference would not be possible since the Michalik two blade cutting cylinder

cooperates with the transport cylinder while the four blade cutting cylinder of Bolza-

Schunemann cooperates with its own cutting groove cylinder 8. The resultant device would not

render obvious the structure of the subject invention, as recited in currently amended claim 48.

Allowance of that claim, and rejoinder of the various dependent claims, is thus requested.

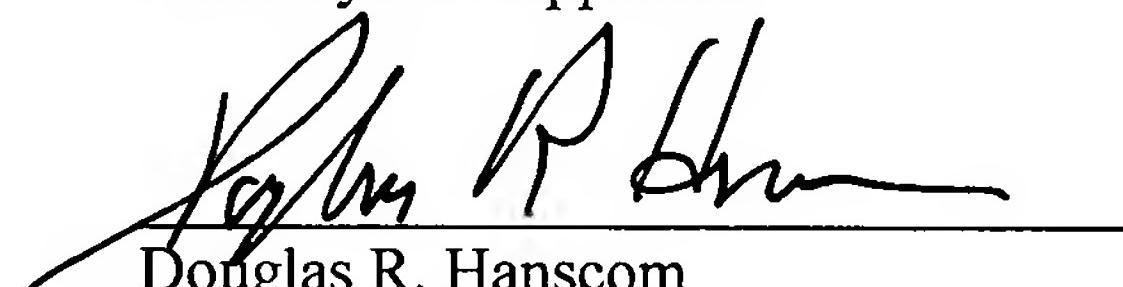
SUMMARY

The substitute specification has been amended to correct an obvious typographical error, without the addition of any new matter. Group I of the claims has been selected for prosecution. The sole independent claim has been amended and is believed to be patentable over the prior art which the Examiner has asserted rendered it unpatentable. Allowance of currently amended claim 48 and rejoinder of the currently withdrawn claims is respectfully requested.

Respectfully submitted,

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